A study of the properties of tablets made of directly compressible isomalt.

Summary

The thesis deals with the study of properties of tablets from two types of directly compressible isomalt – namely galenIQ^{TM} 720 and galenIQ^{TM} 721. The focus of the study was given to the dependence of tensile strenght and disintegration time of the tablets, both on the compression force, the addition of lubricants, namely magnesium stearate and sodium stearyl fumarate (Pruv) with concentrations 0,5% and 1%, and a 50% addition of model active intgredients, namely ascorbic acid and acetylsalicylic acid. The compression forces were used 6, 8 and 10 kN, tablets containing drugs were compressed only with a force of 10 kN. The tensile streght of tablets from both substances increased with increasing compression force, the presence of lubricants did not result any decrease in the strenght. The disintegration time of tablets was longer with substance galenIQ^{TM} 720, it was prolonged by lubricants and increased with increasing compression force for both substances. The presence of drugs decreased the tensile strenght, tablets containing acetylsalicylic acid shown higher tensile strenght. For both drugs was not significant difference in the context of the type of isomalt or lubricants. The disintegration time of tablets was shorter when ascorbic acid was used, where it was the shortest in case of galenIQ^{TM} 721 with Pruv, but for acetylsalicylic acid with galenIQ^{TM} 721 with magnesium stearate.